DYNAMIC REHABILITATION IN GERIATRICS*

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I AM delighted to take part in this symposium on a problem that has always been very close to me and to my work. Before World War II, I was practicing internal medicine in St. Louis, but the war changed my life. It fell to my lot to organize and direct the convalescence and rehabilitation program in the Air Force. Now I am a cross between the old family doctor, Billy Graham, and Lydia Pinkham in selling the "wine of rehabilitation" on an international market.

The first presentation that I made on the over-all program of rehabilitation was at this Academy in the spring of 1945, before the end of World War II. Much has happened since. The greatest advance in rehabilitation in the last 25 years has been in the acceptance of the philosophical concept of responsibility for the third phase of medical care. The first phase is obviously prevention; the second is definitive care; the third is that program necessary to take disabled or chronically ill people back into the best lives they can live with what they have left.

It is necessary to take into consideration not just the physical needs, but the emotional, social, vocational, and educational needs of disabled and chronically ill people who, because of disability or disease, have to change their ways of life. We have learned in this past 25 years, if we have learned anything really important, that physical wholeness and ability are not synonymous in our society. There can even be an advantage to disadvantage because nature has given us such tremendous powers of over-compensation. The blind man sees with his sense of touch and with his acute hearing. When he taps his white cane he can

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hear an echo that you and I cannot hear at all. He can interpret it as to whether he is in an open area or whether there is a wall or trees or something that endangers him. The deaf man hears with his eyes. He has visual acuity far beyond that of the average person. Place paraplegics at a bench job requiring upper-arm strength and hand skill and they will outproduce the so-called normal workers because they are working with greatly hypertrophied muscles with which they crutch-walk. When properly trained and placed, the disabled have a better production rate, a lower accident rate, a lower absentee rate, and nine times less labor turnover than normal persons working side by side with them.

Our present policies toward the aged are wasting the most precious human resource we have: wisdom. People are not born wise; wisdom comes only with experience; and experience comes only with time. Everyone knows that age is physiological and not chronological. Some are old at 40; others are young at 90. I have little patience, and have had many arguments through the years, particularly with friends in industry and labor, on the policy of compulsory retirement at a given age. Sixty-five is supposedly the magic age. I do not know where we found this specific age. The best and most logical explanation I ever heard was given at a meeting where someone said: "Oh, I know how it started; there was a small business and they had a tyrant for a president whom everybody hated. He was also on the board, but they did not know how to get rid of him because everybody feared him. It happened on his 65th birthday that he was out of town on the day of the board meeting so they quickly passed a resolution that there would be compulsory retirement at age 65." You are able at 64 and 364 days. At 65 the calendar turns and something happens.

In a society that can split the atom and fly to the moon, you cannot tell me that we do not have the tools now to evaluate an individual physically and emotionally as to his ability to continue to work if he is needed and wanted, and to determine whether he should retire for his own good or for the safety of his fellow workers. We need professionals who could evaluate an individual completely impersonally, to whom the person could go for the necessary psychological testing, social interviews, and physical examinations in depth. Then a decision could be made as to whether the person was able to continue to work or should retire.

If Winston Churchill had retired at the magic age of 65 it would have been five years before the Battle of Britain, and history might have been different. If I had one universal medication or therapeutic tool to give to people over 65, it would do more than all the medicine in the world; it would be to give the aged the feeling of being wanted and needed, so that when they awake in the morning they would have something to look forward to.

I spoke at the War College in Washington about 23 years ago. It was just at the beginning of the Korean War, and I talked about the utilization of disabled and older persons in our economy because at that time we needed every worker. I talked about the things I am expressing here. When I left, the major general who headed the War College walked out to the car with me and he said, "It meant a lot to me, what you said today. I just passed my last physical a month ago. I was not faulted in any way, not one thing could they find, but I am being retired next month at the age of 63, which is the average age that a United States Senator becomes a committee chairman. Something is wrong."

There is no general rule that applies to everyone. The process of retirement should be selective. You all are much more experienced than I in the preventive side of the problem. Before you retire, have an avocational interest in your hip pocket.

We think we invent many new things in this country. If I could put you on a magic carpet for the next three or four minutes, I should take you to some interesting places. The first stop would be in the Hague, in the middle of the city where there is a beautiful old building with thick walls. When you go through the gate you see apartments all around a little park. In front of each apartment there is a little garden, the size of this lectern. You will see a rosebush in one, a stalk of corn growing in another, and petunias in another, because each is the garden of the person who lives in that apartment. These old retired people have their own furniture in their apartments and they have their own gardens in front. Walking out in the twilight after our visit, we shall notice a stone with an inscription which can be translated as "Established 1695."

We could then fly over to Denmark and see happy places for the aged. The new buildings for older persons in the suburbs are built behind or adjacent to schools, so that the dwellers can watch and get to

know the children, at least through the fence, and they can come around and become friends if they want to. But they do not have the responsibility of care. In those buildings one could live in an apartment alone or couples could live together. There are little kitchens on each floor where the residents prepare tea and coffee, or even lunch when their family and friends come to visit. This is their home. It is a happy place and it has been in existence for many decades.

I should also take you on a fast trip to Korea. We should walk through the countryside where you would see old papa-san walking in the rice paddies with his white robe and smoking his long Korean pipe, wearing a horsehair hat on his head, and walking in great dignity. No decision is made in a Korean family without taking it to the eldest for his opinion; his wisdom is revered. If you will recall the Korean War, you will remember that the Communists came across the 38th parallel a year before the war and they drove ahead of them a million people—the halt, the lame, the blind, and the aged. They thought by dumping these problems on a tottering economy they would win the war without a fight. The trick had exactly the opposite effect. The South Koreans took the refugees in; they shared their rice and a warm place on the ondal floor. If you recall, Seoul was captured five times and people had to flee each time, but you never saw a picture of anyone riding in an ox cart or a wheelbarrow except for the very young and the very old. Koreans have a place in their society for old people. We have not been thoughtful enough to do the same in our society. This is fundamental to the concept of rehabilitation; it is not enough just to hide older people away in a nursing home or in the back bedroom. They have to be wanted and needed.

The problem of the aging is problem number one to us. We are in the strange situation that every time we make a medical advance we "compound the felony." For instance, we keep alive the children born with spina bifida, and the 900 who lack one or more limbs in our Institute program alone. Most of these children, before medicine was what it is today, would have died in the first few weeks of life.

The largest percentage of disability occurs in elderly persons. Until we find the answer to the riddle of cancer, atherosclerosis, diabetes, and demyelinating diseases, all we have to offer is to train the individual to use the potentials that are left to him, taking into consideration, first, his ability (by far the most important) and, second, his disability.

Here are a few examples in the elderly. Stroke is a primary problem, a specter than hangs over us all when we reach a certain age, wondering when the lightning will strike. Two million persons in this country have suffered strokes; the number is nearly constant because those who die are replaced by new members each year. In the past, the situation was felt to be hopeless. If you had one stroke you were out of business. You sat in the back bedroom, the nursing home, or some other place, preferably out of sight, until you had the second. The third would kill you. That is what people used to believe.

We know now that if a man has a stroke his chances of having a second one are the same as in persons in his age group with the same cardiovascular tree. A few years ago a study was done on 3,000 patients with stroke in our program at Bellevue Hospital and the Institute in order to determine what might be accomplished through rehabilitation. The average age was 66, the average time of hospitalization, seven weeks. We were able to return 35% to some kind of gainful work. This work varied from household chores, sometimes done from a wheelchair or with the aid of crutches, to the case of a federal judge who went back on the bench and was one of the most distinguished judges in this area for 17 years before he died.

There are three kinds of patients with stroke that, for obvious reasons, are not amenable to rehabilitation. First, those who have such cardiac damage that they cannot accept the additional activity. Second, those with uncontrollable malignant hypertension; here the expectation is short. And third, those who have such severe brain damage they cannot remember today what they learned yesterday. But let me warn you about the third group. Do not try to make a prognosis in the first few days; the brain is edematous at that time and the same symptoms may be produced by the edema that is produced by the basic lesion.

Wait 12, 16, sometimes even 24 weeks before you reach a conclusion about permanent brain damage. Do not tell patients to give up treatment for their hands too soon, that they will always be useless or partially useless, that nothing can be done after this fixed time, because you will see some patients who continue to improve gradually, not merely over a period of weeks or months, but over years.

We have now broadened our whole program. It is not merely an orthopedic and neurological program. In this country, there are probably more persons, or at least as many, disabled by chronic obstructive

lung disease as by orthopedic disabilities. We have been heartened by what can be done for these unfortunate persons with adequate training. A pilot project has been developed in our Institute that involves 130 patients suffering from pneumonia and emphysema. These patients were so severely disabled that they could not walk across a room. We applied all the appropriate modalities: proper toilet of the tracheobronchial tree, postural drainage, clearing of the sinuses. Smoking was forbidden. Retraining was given for diaphragmatic and segmental breathing. After this treatment and rehabilitation, one third of the group went back to full-time work and 80% were relieved to the point that they were comfortable at home.

We have not really touched the rehabilitation problems of the cardiac patients, probably the largest group we have. We are beginning to get our teeth into these problems. Too often, after coronary thrombosis we advise the patient to "go home and take it easy." What does it mean to take it easy? "Don't do too much." What is too much? We need precise measurements that we can apply to our patients. We should prescribe activity just as we prescribe drugs and diet.

Let us consider rehabilitation medicine and the whole spectrum of care. In the first place, we are short-handed in our programs all over the world. There are 1,700 qualified physicians in the field of rehabilitation medicine. By the most conservative estimates we need about 7,000. We have about 50 young doctors in training at the Institute at all times. When they finish their training they can find work anywhere in this country—there is such a demand for their services.

The tragic word now comes from Washington that training funds will be phased out by the end of fiscal-year 1973 and that there will be no training funds in 1974. I do not know what will happen, but it will be tragic. Rehabilitation is a happy field in which to work. It makes you feel cheerful because you take people who are helpless and hopeless and, by a simple program imbued with a philosophy and spirit, you can give them life.

This was well summarized by the late Morris Piersol, the great Philadelphia physician, who was interested in the problem of the aging and rehabilitation. He said: "We have given years to life. It is also our responsibility to give life to years."

That is what we are talking about here.